

## DEPARTMENT SUMMARY

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### **OVERVIEW:**

The Information Science (IS) Department is an interdisciplinary association of faculty interested in problems associated with defense information systems, command, control and communications, and information warfare/operations.

### **CURRICULA SERVED:**

- Information Systems Technology
- Information Systems and Operations
- Joint Command, Control, Communications, Computers and Intelligence Systems
- Information Systems Technology
- Information Warfare
- Electronic Warfare Systems International

### **DEGREES GRANTED:**

- Master of Science in Information Systems and Operations
- Master of Science in Information Technology Management
- Master of Science in Systems Engineering
- Master of Science in Systems Technology

### **RESEARCH THRUSTS:**

- Software Metrics and Maintenance
- IT Architectures
- Computer Networks
- Decision Support Systems
- Knowledge Management
- Information Warfare
- Information Superiority
- Information Operations
- Command and Control
- Modeling and Analysis of Military Systems
- Combat Identification
- Human Systems Interface
- Threat Analysis

### **RESEARCH FACILITIES:**

- Systems Technology Laboratories (STL): The Naval Postgraduate School Systems Technology Laboratories provide centrally managed, supported, and funded facilities where students and faculty can conduct research and instruction using tomorrow's C4I systems technologies today. The facilities provide for classified and unclassified capabilities for students and faculty to use for immediate classroom reinforcement, student projects, and theses and for faculty and students to conduct leading edge research in their fields. The labs, through advanced telecommunications and networking, allow local platforms of various types to communicate at very high data rates with each other over the Naval Postgraduate School backbone and with other national laboratories and research facilities worldwide using Internet, SIPRNET, and ATM networks, such as DARPA's Leading Edge Services ATM network, the California Research and Education Net (CALREN), Defense Research and Evaluation Net (DREN), and other wideband wide area networks that define the nation's information infrastructure. Using these capabilities, researchers can

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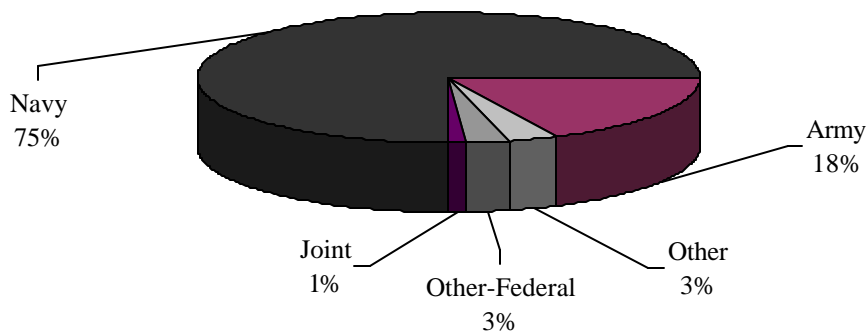
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collaborate with leading researchers and can participate in systems technology research efforts of national prominence.

The Naval Postgraduate School Systems Technology Laboratories contain (or have distributed access to) actual command and control systems for exercises and experiments. The prime example of this is a fully functional CINC version of the Global Command and Control Systems (GCCS) with SECRET interconnectivity to all CINCs and supporting sites. GCCS permits CINCs to complete crisis action plans including assessment, evaluation, and development of options, as well as selection, dissemination and monitoring of execution. The STL routinely conducts experiments with humans in the loop. Operational teams of officer-students can be trained/tested-using wargames as stimuli and using data collection techniques to evaluate performance under varied, but controlled, conditions. Insights into requirements for new doctrine, training and other aspects of the joint environment may be identified that will speed the acceptance of new approaches to decision-making and training.

### **RESEARCH PROGRAM (Research and Academic)-FY2001:**

The Naval Postgraduate School's sponsored program exceeded \$49 million in FY2001. Sponsored programs include both research and educational activities funded from an external source. A profile of the sponsored program for the Department of Information Science is provided below.



**Size of Program: \$2327K**